



Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103
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201-15011

December 31, 2003

Michael O. Leavitt, Administrator
US Environmental Protection Agency
P.O. Box 1473
Merrifield, VA 22116
Attention: Chemical Right-to-Know Program

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RE: Registration No.:

Common name: DV acid chloride

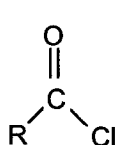
Chemical name: 3-(2,2-dichloro-ethenyl)-2,2-dimethyl cyclopropanecarbonyl chloride

CAS No.: 52314-67-7

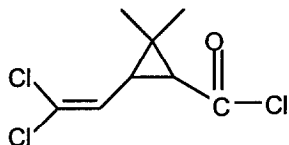
Dear Administrator Leavitt:

FMC Corporation has actively supported the HPV Challenge Program. As sponsor of DV acid chloride, we would like to take this opportunity to describe the reactive nature of this compound and explain why the testing requirements of the HPV Challenge Program are not feasible. Hence, FMC Corporation does not intend to conduct these tests on DV acid chloride.

Alkyl acid chlorides (1), where R = any alkyl functionality, are the most reactive derivatives of alkyl carboxylic acids. The rapid reactions that take place are via nucleophilic substitution. Given the reactivity of this chemical class, alkyl acid chlorides must be stored under anhydrous conditions. They can spontaneously react with moisture, alcohols, ammonia, and most amino functionalities. DV acid chloride (2) falls into this chemical class.

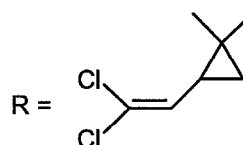


Alkyl acid chloride
(1)



DV acid chloride
(2)

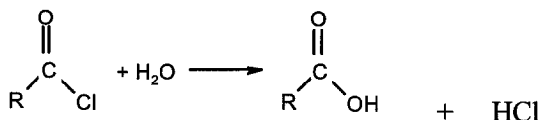
where



Alkyl functionality
(3)

Typical reactions of acid chlorides are:

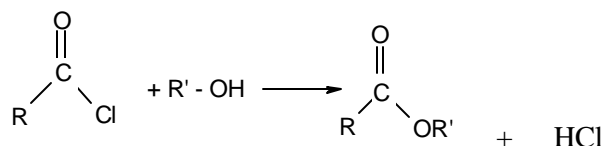
(4) Acid formation from reaction with water



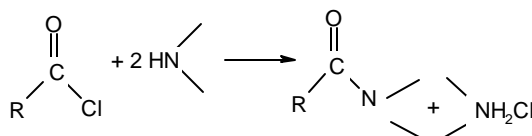


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(5) Ester formation from reaction with an alcohol



(6) Reaction with ammonia and related functionality (primary or secondary amino groups)



In addition to these reactions, alkyl acid chlorides have a tendency to fume by releasing hydrogen chloride (HCl). This can cause pressurization of closed containers, which in turn might create a potential for rupture that could be potentially dangerous. Alkyl acid chlorides also react with metals, making them corrosive to many container types.

These basic reaction schemes clearly illustrate why many physical, environmental and biological tests with alkyl acid chlorides are not practical. Any test involving water (i.e. water solubility, partition coefficient determinations, hydrolysis) would be affected by reaction (4). Biological tests, such as the toxicology tests, would also be affected by reaction (4), since biological systems are predominately water. In addition, the HCl produced by this reaction would be damaging to the tissues, rendering the tests inconsequential. Furthermore, any system containing hydroxyl functionalities, an ammonia or primary amino functionalities, including biological systems, would be compromised by reaction (5) or (6), making any test results difficult to interpret.

As described above, DV acid chloride rapidly reacts with moisture and a variety of surfaces. Due to this reactivity, tests performed on this compound would be substantially related to its reaction products, not to DV acid chloride itself. Therefore, FMC Corporation does not believe the testing requirements of the HPV Challenge Program are feasible and does not intend to conduct these tests on DV acid chloride.

Please contact me if you have any questions or concerns regarding this submission.

Sincerely,

Natalie Rutherford
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